

REMARKS

Claims 1-5, 7, 8, 11-18, 20, 21, and 23-28 are in the application. Reconsideration and withdrawal of the rejections is requested in view of the changes to the claims and the following remarks.

Claims 6, 9, 10, 19, and non-elected claim 22, have been cancelled. New claims 23-28 have been added.

Claim 1 has been amended to describe the mounting plate having an annular center section, and an annular actuator having a diameter substantially equal to the diameter of the center section of the mounting plate. Claim 21 (as amended) and new claim 26 include similar elements. These elements are shown in Fig. 7.

Amended claims 2-11 and 20, and new claim 26, generally describe a cover which can be removed without affecting operation of the processor. As described at paragraph 0022, since the cover does not affect or cooperate in operation of the door system, it can be removed, while the door system is operated, to allow for visual inspection and adjustment.

Amended claim 12 describes the legs extending rearwardly at an angle as shown in Figs. 5 and 7 and described at paragraph 0016.

As described at paragraphs 0004-0007, the door must be aligned with the chamber opening, to seal process chemicals, liquids, and/or vapors or gases within the chamber. Since certain process chemicals are highly corrosive and/or toxic, maintaining the seal is important in manufacturing operations. In certain applications, the sealing element or ring (such as seal 100 in Fig. 7) is made of Teflon or similar material, to resist corrosion, from process chemicals such as hydrofluoric acid. While highly resistant to corrosion, Teflon is subject to cold flowing or distortion. Accordingly,

maintaining the seal plate in alignment is important to initially achieving, as well as maintaining, a reliable seal. Misalignment is detrimental to the sealing function, and can also result in damage to the seal (e.g., the seal 100 shown in Fig. 7). The claims describe a processor which allows for better visual inspection of the alignment. Accordingly, the door can be aligned more quickly and easily than in prior art processors, such as the processor in Owczarz et al., USP 5,449,289.

Turning to the prior art, Blahnik, USP 6,347,918 B1, describes a processor where a single wafer is passed horizontally through a slot opening 19 shown in Fig. 3. There are no "legs" as claimed in Blahnik. Element 20 in Fig. 3 of Blahnik is a gas supply line. Column 3, line 1. Correspondingly, Blahnik does not disclose a mounting plate having an annular center section having a height H and first or second leg having a height less than H. Blahnik also does not suggest an actuator having a diameter substantially equal to a diameter of a center section of a mounting plate. In addition, Blahnik does not disclose a removable or cosmetic cover, as claimed. Element 15 in Blahnik is a housing 15, which is essential to the operation of the Blahnik valve. Column 2, lines 59-67. The housing 15 in Blahnik cannot be removed from the remaining components, while maintaining an operable valve. Moreover, there is no suggestion in Blahnik for removing any cover for purpose of inspection or adjustment. The claims are therefore patentable over Blahnik.

Owczarz et al., USP 5,449,289, generally describes the type of processor discussed at paragraph 0004. Regarding claims 1, 21, and 26, Owczarz et al. does not suggest a mounting plate having an annular center section. As shown in Fig. 1, the main support piece 30 in Owczarz is not round or annular. In addition, the actuator in Owczarz et al. is significantly smaller than the main support piece 30. In contrast,

claims 1, 21, and 26 describe the actuator having a diameter substantially equal to the diameter of the center section of the mounting plate. An advantage of this claimed relation between the mounting plate and actuator is that as shown in Figs. 4-7 of the application, engagement and alignment of the seal plate with the chamber can be more easily inspected, and adjusted.

Regarding claims 2, 11, 20, 23, and 26, Owczarz et al. does not disclose any removable or cosmetic cover. Contrary to paragraph 5 of the July 29, 2004, Office Action, element 30 in Owczarz et al. is the main door support piece. Column 3, lines 30-34. Element 31 is an outer door face piece. Column 4, lines 8-16. Both elements 30 and 31 in Owczarz et al. are clearly essential to operation of the processor, and the processor cannot be operated without them. The main door support piece 30 is essential for supporting and holding up various other door components, such as 35, 32, 31, 37, and 35 shown in Fig. 2. The face piece 31 holds the viewing aperture 36, and also supports and interacts with many other components, as shown in Fig. 5 of Owczarz et al. Consequently, neither element 30 or 31 in Owczarz et al. suggests the claimed cover. Moreover, there is no suggestion whatsoever in Owczarz et al. of removing any cover for any purpose whatsoever.

In view of the foregoing, it is submitted that the claims are in condition for allowance. A Notice of Allowance is requested.

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Specification Replacement Sheet:

[0001] This application is Continuation-in-Part of U.S. Patent Application Serial No. 09/274,511, filed March 23, 1999 ~~and now pending~~ ,now U.S. Patent No. 6,279,724, which is a Continuation-in-Part of U.S. Patent Application Serial No. 09/112,259, filed July 8, 1998, ~~and now pending~~, now U.S. Patent No. 6,273,110, which is a Continuation-in-Part of U.S. Patent Application Serial No. 08/994,737, filed December 19, 1997, ~~and now pending~~, now U.S. Patent No. 6,447,232, which is a Continuation-in-Part of U.S. Patent Application Serial No. 08/851,480, filed May 5, 1997 and now abandoned. This Application is also a Continuation-in-Part of U.S. Patent Application Serial No. 09/612,009, filed July 7, 2000 and now pending. Priority to these applications is claimed under 35 USC § 120, and these applications are incorporated herein by reference.

[0013] As shown in Figs. 5-7, the closure plate 78 includes a centrally located transparent window 80, which allows visual inspection of the workpieces and interior of the chamber 52, during processing of workpieces. A door seal 100 is attached to the ~~back~~ box surface of the closure plate 78. A window plate 104 is attached to the front surface of the closure plate 78, and secures the window 80 in place.